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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,724

06/15/2007

Nicolas Gaillard

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3297

23405

7590

02/06/2009

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EXAMINER

PEZZUTO, HELEN LEE

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

02/06/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,724	Applicant(s) GAILLARD ET AL.	
	Examiner Helen L. Pezzuto	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's amendment to claims 1, 3, 7, 10, 15-17, and the cancellation of claim 12 filed in the response on 11/14/08 is acknowledged. Currently, claims 1-11, 13-17 are pending in this application.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 10, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recited molecular weight for a polymer should be defined by one of the standard types (Mw, Mn, etc). Do applicants intend weight average (Mw) or number average (Mn) molecular weight?

Response to Arguments

3. Applicant's arguments with respect to claims 1-11, and 13-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-11, 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (US-946) or Shinkai et al. (US-855) or Ji et al. (Gongneng Gaofenzi Xuebao (2003), 16(3), 387-391).

US 6,702,946 B1 to Huang et al. discloses aqueous dispersions of cationic water-soluble polymers comprising inter alia, a first cationic water-soluble or water-swelling polymer, and at least one second water-soluble polymer different from the first polymer (see abstract). In one of prior art embodiments, the first cationic water-soluble polymer contains 1-100% of a cationic recurring unit(I), wherein R₄ is a 1 to 10 carbon alkyl group or a 6 to 10 carbon aryl group defined within the scope of the instant R₇ in the recited acrylamide-derived cationic monomer(col. 4, lines 1-37; col. 7, line 50 to col. 8, line

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44). Suitable anionic and non-ionic monomers include acrylic acid, AMPS, styrene sulfonic acid, (meth)acrylamide, N-isopropylacrylamide, defined within the scope of the instant anionic and acrylamide-derived non-ionic hydrosoluble monomer (col. 8, line 45 to col. 9, line 23). The molecular weight of the resultant first cationic polymer in the aqueous dispersion is taught to be within the instantly recited range (col. 10, lines 1-9). Accordingly, it would have been obvious to one having ordinary skill in the art to select the cationic, anionic, and nonionic monomers in the recited proportions to produce a cationic polymer as taught, motivated by the reasonable expectation of success.

US 5,683,855 to Shinkai et al. discloses a printable member comprising a substrate and a surface layer. Specifically, the surface layer is a radiation cured coating comprising 1 to 50 wt% of a compound (a) having a quaternary ammonium salt group such as defined by formula (2), and 5-70 wt% of a carboxyl group-containing compound (b), which embrace the presently claimed cationic and anionic monomers (col. 2, lines 6-39; col. 3, lines 61-65; col. 4, lines 18-31; col. 5, lines 5-10; col. 6, lines 20-45). Prior art further suggest adding up to 50 wt% of a

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monomer (f) including acrylamides, taught within the scope of the instant acrylamide-derived non-ionic monomer (col. 9, lines 10-18). Prior art appears to be silent regarding the molecular weight of the resultant coating layer. The examiner takes the position that the recited molecular weight is an inherent property which necessarily flows from practicing prior art invention. In any event, it would have been obvious to one having ordinary skill in the art to determine the optimum molecular weight suitable for a coating surface layer within prior art general disclosure.

The article to Ji et al. is directed to solution viscosity studies of water-soluble hydrophobically associated terpolymers of acrylamide/methylacrylaminoethyldimethylalkyl ammonium bromide/sodium acrylate, disclosed within the scope of the instant non-ionic, cationic and anionic monomers. Specifically, the alkyl group (R) on methacrylaminoethyldimethylalkyl ammonium bromide is a C8 to C14 alkyl group, clearly falls within the scope of the instant R7. Prior art is silent regarding the relative amounts of each monomers and the molecular weight of the resultant associative terpolymer. The examiner is of the position that one skilled in the art would have readily

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envisaged the proportions and molecular weight to suit the specific application. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. Furthermore, the resultant terpolymer having the recited molecular weight would have been an inevitable consequence of practicing prior art invention. Thus, rendering obvious the present claims.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Helen L. Pezzuto/
Primary Examiner
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hlp